PREFACE

The MM5 tutorial class is sponsored by the Mesoscale and Microscale Meteorology Division (MMM) at the National Center for Atmospheric Research. The class is offered twice a year by the Mesoscale Prediction Group of MMM. The tutorial notes are available on the MM5 Web page (URL: *http://www.mmm.ucar.edu/mm5/documents/tutorial-v3-notes.html* and *http://www.mmm.ucar.edu/mm5/documents/MM5_tut_Web_notes/TutTOC.html*). An online tutorial, which takes a new user step by step through how to set up and run the MM5 modeling system programs, is available at *http://www.mmm.ucar.edu/mm5/mm5v3/tutorial/teachyourself.html*. General information regarding the MM5 modeling system, model applications, documentation and user support can also be found on the MM5 Web page (*http://www.mmm.ucar.edu/mm5/mm5-home.html*).

This version of the notes is edited for MM5 modeling system Version 3, release 3-6. The major changes in the release 3-6 are the replacement of the OSU LSM with an updated Noah LSM, and physics modifications applicable in polar regions. Most of the chapters in these notes have been updated for these new changes. The most important of these are, chapter 8: MM5, and the chapters dealing with REGRID, INTERPF and NESTDOWN.

Chapter 6, which use to deal with only the RAWINS program, has been totally revamped and is now called “Objective Analysis”. The emphasis in this chapter has also moved away from the older RAWINS program to the newer LITTLE_R program. All the RAWINS information is still avialable, but has moved to Appendix F.

The MM5 3DVAR code was officially released in June 2003. An introduction to this code as been added, and is available in Appendix E. More information on the 3DVAR system can be obtained from URL: *http://www.mmm.ucar.edu/3dvar*)